

CLEAN COPY OF THE CLAIMS

- 15. A teleconferencing system comprising:
 - (a) a plurality of AV devices, each capable of
 - (i) originating and reproducing
 - (1) user related audio and video signals;
 - (b) a plurality of communications ports, each supporting
 - (i) at least one of the group of switch connections consisting of
 - (1) video in, video out, audio in and audio out; and
 - (c) at least one communication path,
 - (i) arranged for transport
 - (1) of audio and video signals,

wherein the system is configured to

- (i) to control a communication connection
 - (1) between two of the AV devices,
 - (2) over the communication path,
- (ii) by creating,
 - (1) as a result of a call request,
 - (2) at least a first call handle,
 - i. associated with one of the two AV devices and, thereafter,
 - (3) at least a second call handle,
 - i. associated with the other of the AV devices,
 - (4) each call handle defining,
 - i. for its respective AV device,
 - ii. a call state, being at least one of the group consisting of

active and hold states; and



the port switch connections involved in the communications connection.

- 16. The system according to claim 15, further comprising
 - (a) at least one signal processor, including
- (i) at least three communications ports wherein the system is further configured to
 - (i) control communications connections among
 - (1) three or more AV devices and
 - (2) one of the signal processors
 - (ii) by generating a plurality of call handles
 - (1) one associated with each of the three or more AV devices and
- i. one associated with each of the three or more ports on the signal processor.
- 17. The teleconferencing system of claim 15, wherein the system is further configured to:
 - (a) detect,
 - (i) during a first teleconference communication
 - (1) between users of first and second of the AV devices,
 - (ii) an attempt
 - (1) from a third user
 - (2) to initiate a second teleconference communication
 - i. with the second user,
 - (b) notify
 - (i) the second user



- (ii) of the attempt; and
- (c) allow
 - (iii) the second user
 - (iv) to add
 - (1) the third device
 - (2) to the first communication.
- 18. The teleconferencing system according to claim 16, wherein the system is configured:
 - (a) to detect and add
 - (i) a fourth AV device
 - (ii) to an existing teleconference communication,
 - (b) by creating a call handle
- (i) associated with each of the fourth device and with a fourth-device associated port at the signal processor.
- 19. The teleconferencing system of claim 16, wherein the system is further configured to
 - (a) allow any device user
 - (i) active in a teleconference communication
 - (1) with at least one other device user,
 - (b) to do at least one of the group consisting of
 - (i) place on hold,
 - (1) at least one of the other device users,
 - (2) by causing the system to change the state, of at least one call handle associated with that other device user, from an active to a hold state.



- (ii) disconnect
 - (1) at least one of the other users; and
- (iii) select
 - (2) a new user
 - i. from among a plurality of potential users and
 - (3) add the new user
 - i. to an active teleconference communication,
- i. by causing the system to generate at léast one call handle associated with that new user.
- 20. The teleconferencing system of claim 15, wherein the system can
 - (a) support a maximum number of N communications
 - (i) for an AV device; and
 - (b) enable a user,
 - (i) operating that device,
 - (ii) to select N of M possible communications,
 - (iii) when faced with M possible communications,
 - (1) where M is greater than N.
- 21. A teleconferencing system comprising:
 - (a) at least three AV devices, each capable of
 - (i) originating and reproducing
 - (ii) user audio and video related signals; and
 - (b) at least one communication path,
 - (i) arranged for transport

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- (1) of audio and video signals,
- (ii) to define a teleconference call
 - (1) among the device users,
 - (2) in which user audio and video is displayed at a device,

wherein the system is configured to

- (i) allow a user
 - (1) of any of the devices
 - (2) active in a teleconference call
 - i. with other users,
- (ii) to do at least one of the group consisting of:
 - (1) place on hold,
 - i. at least one of the other users; and
 - (2) disconnect
 - i. at least one of the other users.
- 22. A method of conducting a teleconference using a system including:

a plurality of AV devices, each capable of

originating and reproducing

audio and video signals,

a plurality of communications ports each supporting

at least one of the group of switch connections consisting of

video in, video out, audio in and audio out; and

at least one communication path

arranged for transport of audio and video signals,

the method comprising the steps of

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- (a) controlling communication connections
 - (i) between two of the AV devices,
 - (ii) over the communications path,
- (b) by creating, as a result of a call request,
 - (i) at least a first call handle,
 - (1) associated with one of the two AV devices and, thereafter,
 - (ii) at least a second call handle
 - (1) associated with the other AV device,
 - (iii) cach call handle defining,
 - (1) for its respective AV device,
- (2) a call state being at least one of the group consisting of active and hold states, and
- (3) the port switch connections involved in the communications connection.
- 23. The method according to claim 22, wherein the system further includes

at least one signal processor and wherein, in controlling communication connections between three or more AV devices, the method further comprises the steps of

- (a) generating a plurality of call handles
 - (1) one associated with each of the three or more AV devices and
- (2) one associated with each of the three or more ports on the signal processor.

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- 24. The method of claim 22, wherein the method further comprises the steps of:
 - (a) detecting,
 - (i) during a first teleconference communication
 - (1) between first and second AV device users,
 - (ii) an attempt
 - (1) by a third user
 - (2) to initiate a second teleconference communication
 - (3) with the second user,
 - (b) notifying
 - (i) the second user
 - (ii) of the attempt; and
 - (c) allowing
 - (i) the second user
 - (ii) to add
 - (1) the third caller
 - (2) to the first teleconference communication.
- 25. The method of claim 23, further comprising the steps of:
 - (a) detecting and adding
 - (i) a fourth user
 - (ii) to an existing teleconference communication
 - (b) by creating a call handle
- (i) associated with each of the fourth device with a fourth-device associated port at the signal processor.

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- 26. The method of claim 22, further comprising the steps of
 - (a) allowing any device user
 - (i) active in a teleconference communication
 - (1) with at least one other user,
 - (ii) to do at least one of the group consisting of:
 - (1) place on hold,
 - i. at least one of the other device users,
- ii. by causing the system to change the state, of at least one call handle associated with that other user(s), from active to hold;
 - (2) disconnect
 - i. at least one of the other users; and
 - (3) select
 - i. a new user
 - i. from among a plurality of potential users and
 - ii. add the new user
 - i. to an active teleconference communication,
 - (iii) by causing the system to generate at least one call handle associated with that new user.
- 27. The method of claim 22, wherein the system can

support a maximum number of N communications

for an AV device;

the method further comprising the steps of:

- (a) enabling a user,
 - (i) operating that device,





- (b) to select N of M possible communications,
 - (i) when faced with M possible communications
 - (1) where M is greater than N.
- A method of conducting a teleconference using a system including at least three AV devices, each capable of

originating and reproducing

user audio and video related signals; and

at least one communication path;

arranged for transport

of audio and video signals,

among the AV devices,

to define a teleconference call

among the device users,

in which user audio and video is displayed at a device, the method comprising the steps of

- (a) allowing a user
 - (i) of any of the devices
 - (ii) active in a teleconference call
 - (1) with other users,
- (b) to do at least one of the group consisting of:
 - (i) place on hold,
 - (1) at least one of the other users; and
 - (ii) disconnect
 - (1) at least one of the other users.



- 29. The teleconferencing system according to claim 15, wherein
- (a) the call handle is created immediately prior to the communication connection being established.
- 30. The teleconferencing system according to claim 15, wherein
 - (a) the communication connection
- (i) becomes active if, and only if, both call handles associated with the two AV devices have active states; and
- (ii) goes on hold if the call handle associated with either of the two AV devices has a hold state.
- 31. The teleconferencing system according to claim 15, wherein
 - (a) any call handle includes
 - (i) address information associated with the communication connection.
- 32. The teleconferencing system of claim 15, wherein
 - (a) each call handle can also define a state of one of the group consisting of
 - (i) idle and ringing states.
- 33. The method according to claim 22, wherein
- (a) the call handle is created immediately prior to the communication connection being established.

- 34. The teleconferencing system according to claim 22, wherein
 - (a) the communication connection
- (i) becomes active if, and only if, both call handles associated with the two AV devices have active states; and
- (ii) goes on hold if the call handle associated with either of the two AV devices has a hold state.
- 35. The method according to claim 22, wherein
 - (a) any call handle includes
 - (i) address information associated with the communication connection.
- 36. The method of claim 22, wherein
 - (a) each call handle can also define a state of one of the group consisting of
 - (i) idle and ringing states.